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Agricultural.

For the Michigan Farmer.

FILLING THE SILO.

This year I filled my silo with common field corn, of the flint variety. Next year I shall plant two acres at least of the larger Southern corn, as that is said to yield from 18 to 25 tons per acre, which is more than double what my corn yielded this year, although it was very heavy.

It is found of late that ensilage is better if the corn is quite well advanced towards maturity before cutting. I left mine in the field till the ears were glazed. It may be cut one day, and drawn to the silo the next, or cut and shocked and put into the silo at pleasure, if one finds this more convenient. Nor is it necessary to rush the filling. It is found quite as well to fill the silo on alternate days. My ensilage proves however, that if the corn remains uncut till the ears are glazed, it is as well to rush the filling. Next year I shall cut for the silo at the time I would cut to shock for husking. I shall then have two men cut in the field—we could not make our reaper work—two men each with a team to draw, and two men at the barn, one at the cutter, and one—not a lazy man—to tread and level in the silo.

When a teamster enters the field, the two men stop cutting and hand up stalks to the teamster for a load. We drew a ton to a load. When the teamster arrives at the barn he passes the stalks to the table of the cutter. My cutter would only cut as fast as two teams would draw. If the cutter will cut as fast as three teams will draw, another field man would be needed. A boy could be secured to drive the teams. The large wheels are exchanged for the small ones on the wagon so as to lower the hind end. And a long plank with cleats nailed on it extends from wagon to ground. The field men now carry the stalks up the plank and have no need of a loader. At the barn the cutter is placed on a level with the wagon rack, and two men here carry from wagon to cutting box. The cutting machine should have a carrier to deliver the cut stalks in the middle at the very top of the silo. The cut stalks should be thoroughly trodden, especially about the edge, else the air will not be all excluded, and more or less will spoil. The door which runs the whole height of the silo, or to within one or two feet of the top, should be made air tight by use of building paper and sealing of the joints.

DECATUR BROSS, Secy.

MEDINA FARMERS' CLUB.

MEDINA, JANUARY 11, 1888.

The Medina Farmers' Social Union, as per adjournment, met at the home of Mr. and Mrs. O. F. Green, January 11th. The number present was from sixty to seventy. At 11 o'clock the meeting was called to order by the President. The first subject for discussion was "Producing, Saving and Applying Manure," opened by Fred. A. Lewis, who said:

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January 23, 1888.

The Horse.**OFF HIS BASE.**

Under the above heading, in the January number of *Willie's Monthly*, a correspondent takes occasion to ridicule the proposed attempt of Senator Palmer to produce a new type of the horse by breeding Percheron mares to Arab stallions. What the writer says may be all true—part of it we know to be so—but all the same Senator Palmer has an undoubted right to put to a practical test the theories he has long entertained with regard to the breeding of improved horses. He is doing it at his own cost and in his own way. He has not formed a joint stock company and sold shares, or attempted to make a monopoly of the business by forming an "Arab-Percheron trust." We give the remarks of the correspondent so as to see how the results of Senator Palmer's theories agree with those of the correspondent. It is the unexpected which happens, say the French, and it is just as well to await a practical demonstration as to quarrel over theories. There is one thing this correspondent neglects, or forgets to say, and that is that there is not a family of the horse in existence which cannot or has not been improved by the thoroughbred, a horse bred from the Arab. This correspondent may rest assured that Senator Palmer is not a fool, and where he is known is credited with a keenness of foresight which has enabled him to keep close to the head of the procession in all kinds of company. But here is what the correspondent says:

"The novelists who work the Arabian horse, with his unspeakable beauty and mysterious spirit, into their romances are responsible for a great deal."

"There is something about the conventional Arab as fiction, as it is appearing, and one cannot help but feel that he has no bone in his body, if he ever had any, deserts him. Witness Mr. Randolph Huntington."

"The latest subject that the Arab theory has carried off his base" is no less a person than Senator Palmer, of Michigan.

"The Senator, it appears, is already an extensive breeder of Percherons, French drafts and such coarse varieties of beasts of burden. In contradistinction from the coarseness of his Percherons, he has no doubt possessed over them a certain grace. An Arab steed, of whose tireless flights across sand wastes, carrying on his back the gory Mohammedan, gritti with the sands of the desert, the 'literary fellers' lie so innocently. So this prominent 'Michiganian' has conceived the brilliant idea of mating the quick with the sluggish—the *pétale* with the gross—the Arab with the Percheron, and thus founding "a new and better breed." This is no rash impulse, for we are not so sure that the Senator has given the effect of a study to his scheme."

If a school-boy were to consider the legal rudiments of the law of generation, he would know too much to attempt any such foolishness as breeding to extremes to get a "happy medium," and if this same schoolboy were to study the form and capacities of the Percheron, and then the form and capacities of the Arabian, he would be very apt to call the man a fool who would want the product of a cross between them.

To be wholly plain, it doesn't matter whether a man has "studied breeding" all his life, or whether he has had enough spare time to work into the S-mate, or whether he be an ignoramus of the woods, if he tries to improve his horses by breeding to opposites he merely advertises his utter ignorance of the subject of breeding.

A Keene Richards, a Kentucky horseman of lofty aspirations, got the Arab theory into his head to the extent that as the runner came from the Arab, the way to improve the runner was to go back to Arab blood. Mr. Richards studied the Arab horse in its own clime, shot with a gun, brought some of the 'purest' Arabians back to England to breed race-horses from. As in Mr. Richards' case, they have been beaten on every course on which they ever started. Sir Wilfred's Arabes have been dismal failures. Note the difference between the Arab of story and the Arab in the stern reality of life.

"But, utter failures as they were, the theories of Richards and Blount are rational compared with this 'fad' of Senator Palmer. Both of these gentlemen knew too much about breeding to be taken in by crosses. They were breeding at least with in the same kind, they were crossing the same general type, and could thus breed equine beauties, though of course lacking in racing capacity.

"The typical Arab horse is simply a magnificent pony, and the offspring of a fine, like 14-hand mare and cluny 17-hand Percheron, or vice versa, would naturally be a misshapen, useless beast. That is not a matter of speculation—it is a demonstrated result of natural law.

"Sir Wilfred's Arab has sent us many after the Arabs and stolid results can be looked for, and now suppose the impossible—suppose by mating the opposites he should strike the happy medium, with all the virtues of both—what would his horses be good for? Their Percheron blood wouldn't be very good on the turf—neither would their Arab blood. They wouldn't trot, because Percheron strains are not sensational sources of trotting speed, and Arab trotters exist only in the perverted fancies of the Percheron-Arab.

"Sir Wilfred's Arab wouldn't be a good dray horse for the Parisian dray, and at least ever since the Godolphin Arab protested against the Parisian dray, the Arab hasn't taken kindly to shafts. Of course the king of the desert wouldn't descend to the servile tasks of plow and cart, and even the ambitious blood of the lymphatic Percheron would not drag him down to that. (We don't know this from experience, but if we are wrong, Mr. R. R. Palmer can correct us. He is the owner of Lord Byron's famous Arab.)

"We don't know any type of horses.

We have the trotter, the runner, the light-harness horse, the coacher, the draft, and while there may be room to improve on all these types, the way to do it is not by introducing blood of imaginary capacity, or by mixing of kinds, but by improving each kind within itself. The Percheron-Arab is not wanted—he would not fill a long-felt want—and even his coming will not distract the occupation of the noble mule.

Senator Palmer of Michigan, should interview Senator Stockdale, of Michigan, and learn something about breeding high-class American horses."

Horse Gossip.

J. B. HAGGIN, the California turfman, is thinking of taking a stable of runners to Australia the coming season.

TROTTING bred horses have sold higher the past year, taking the average prices obtained than ever before.

On the night of January 10th a fire in the horse barns of the Meriden, Conn., horse railway company destroyed eighty horses.

O. W. PARSELL, of Flushing, Genesee County, breeder and importer of Clydesdales, recently sold ten imported stallions to Ohio parties for an average of \$1,500 each.

JOHN CAVENDISH and A. I. Barber, of Mason, Ingham Co., have purchased from Herman Frazel a yearling filly sired by Mr. Barber's Greenbacks, dam by Trophy. Price said to be \$300. The filly is represented to be very promising.

The trotting stallion Gerald Goldsud, killed himself recently in a singular manner. He was separated from another stallion by a plank partition nine feet high. He attempted to get over this by leaping, struck his jaw on the top of the partition, while his nose was caught and held by a rafter, breaking his Hereford cattle.

At the last State Fair the entries in the various classes of horses numbered 445, divided as follows: Cleveland Bay and other coach horses, 7; thoroughbreds, 15; all work, 110; roadsters, 35; breeders' stock, 33; gents' driving horses, 24; Clydesdales and English draft horses, 44; Norman Percheron and other French draft horses, 14; draft horses (not registered), 28; carriage and buggy horses, 65; roadster stallions (standard), 23; stallions, mares and geldings under saddle, 8; sweepstakes for stallion with five of get, 19. The amount offered in premiums was \$3,388, and the awards aggregate \$2,450. The horses shown were all owned in Michigan.

THE Cleveland Bay Horse Company, of Paw Paw, Mich., have sold to James Seagraves, Eaton Rapids, their Cleveland Bay stallion, Young Recruit 675 of English C. B. Stud Book. Young Recruit was purchased by this company in the spring of 1886, and has proven himself one of the surest and best sires of this popular breed of horses. His colts are models of form and action of this breed, and sell readily at \$100, with larger prices asked. They will weigh at maturity from 1,500 to 1,600 pounds, and stand 16 hands on an average, from common mares. This horse was imported in 1885 by Field Brothers of Iowa, and has received frequent notice through various agricultural journals as a beautiful horse. The farmers of Eaton County will not fail to appreciate the opportunity to secure some of his colts.

GEORGE E. BROWN & CO. announce that it has been decided to close the present partner ship under which they have been doing a most successful business for many years. The "Co.", Mr. Chase, A. Brown, of Portland, Me., finding his large manufacturing interests in the East require his undivided attention, and the managing partner, Geo. E. Brown, not caring to continue the business on the immense scale the firm has been doing, they have decided to close out the large stock by April 1st; and this end will prove very attractive prices to intending buyers. This firm is too well known to our readers to require extended comment from us. When it is considered that at the time Geo. E. Brown commenced this business fourteen years ago, Cleveland Bay and English Shire horses and Holstein cattle were scarcely known in this country; that when locating at Elgin in 1875, one carload constituted his entire stock in trade; and that now the stables and yards of this firm occupy more than ten acres of ground and 500 acres of rich prairie afford but little more than pasture for their breeding and growing stock, it will readily be conceded that their selections must have been of the best, and that these now popular breeds have supplied a decided want in this country. Were anything further necessary to emphasize the success of Messrs. Brown & Co., it is found in the fact that their stock has always been at the front when exhibited at agricultural fairs, and in several instances nearly swept the board of prizes in spite of the strongest competition. Shrewd buyers wanting first-class stock will not let this opportunity to supply themselves go by. We advise them to send at once for illustrated pamphlet and full particulars. See their new advertisement.—Aurora Beacon.

The Farm

THE FUTURE OF THIN AND WORN SOILS.

In almost every township in the State there are tracts of land, of greater or less extent, where natural fertility is below the average. Other parcels through neglect, or bad farming, have been run down, and are partially, if not practically, barren for farming purposes. There are other small farms still, whose areas are so small that every field must be kept constantly cultivated to supply the family needs, and so gradually fall. Now, from whatever cause these lands are brought down to this point, there is great need for some radical change, or the descent will soon reach a point from which recovery is doubtful, or at least very expensive in both time and money. It is very difficult to explain why the virtue of fertile fields should be lost by barren lands, where the same treatment fails to produce profitable returns. But it is not difficult for the experienced farmer to detect such soils, and locate their boundaries. Some deflecting flow of sand beneath the grinding glaciers of that early period, when the effort of centuries was necessary to effect the changes and mix the soils, as we now find them. It is not my province to follow that "prentice hand" along down the ages, until the soil was turned over to the practice and experiments of farmers. It is enough to know the facts, and to state them as they exist, and to try and solve the riddle of their redemption.

Along the border of such lands as I have alluded to at the outset, there will be found fine farms, where extremes, to some extent, protrude into these desert places; and

by dint of careful handling, and an appreciation of the extent to which production can go, before rest is imperative, these fields are kept from degenerating, at least in fertility, and quite frequently, they gradually improve. An inquiry into the manner of handling these fields will give the key to the manipulation necessary in order to farm it successfully on whole areas of like soils.

I think it will be found that corn is the crop, above all other grain crops, best suited from its requirements, and for its effect on the land, for production on lands of the character indicated. An authority for whom I have great respect—B. G. Buell, of Little Prairie Lodge, Cass county—advocates turning in hogs enough to economically consume the crop standing, turning under the stubble for another crop to be fed in like manner, then plow for wheat, or rye, and seed to clover. When plowed again, repeat the process. This predicts with a large measure of assurance, will not only retain the added fertility, but will change the consistency of the soil, so that its mechanical effect shall aid its restoration. This is, of course, only practicable when weather is handy, and, where the individual owner has the credit to purchase the store hogs at the proper time, but there are ten farmers occupying their lands, who would not venture upon such an enterprise, as valuable as it appears, where there is one to profit by the advice, and to these nine farmers, there must be a more primitive plan, which they will be more likely to adopt. The difficulties to overcome lie in the tendency all men have to imitate success regardless of the surrounding conditions. Wheat must be left out of rotation as a money crop, and only be grown in small fields where the conditions are at the best, and foreshadow success to follow. I would plant corn and keep the cultivated running in ordinary seasons, until the ears are formed, so that no green thing shall appear above the ground except the corn. If grass is allowed to grow, the cut-worm moth will deposit eggs, and provide for the certain destruction of young clover the next spring. At the last cultivation in August, so winter rye, cut up the corn and thresh it, knock off the stubble while the ground is frozen, then the next spring sow clover, either while the ground is frozen and cracked, or harrow it later; roll the ground well and now off the rye for hay about the time it is heading out or at blossoming time. Cut-worms will not appear in ground where no grass grew the summer before. More clover falls from their depredations on sandy land, than from all other causes combined. Their work is so insidious, guarded by the darkness, that the young clover is gone before its loss is discovered, then frost, or bad seed must bear the odium of the failure.

The question, at what period in its growth has clover imparted to the soil its maximum benefit is determined by opinions, rather than by proofs, and these opinions and practices vary among farmers. I am of the opinion, and I think it is gaining ground, that the first full growth of clover has done for the soil all that is capable of, and that by turning it under at that time, the fertility is trapped and retained, while its escape is permitted by an attempted addition in new growth another year. If this assumption is correct it will allow more frequent cropping on small farms, and a less number of fields will be required, but that by turning it under at that time, the fertility is trapped and retained, while its escape is permitted by an attempted addition in new growth another year. 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Horticultural.**Grapes and Sweet Apples.**

The old saying that we cannot expect perfection in any one variety of fruit seems especially exemplified in grapes. I have so far been unable to secure the desired prize. On my trellis for specimens, El Dorado comes near the mark—that is, when you can get the fruit. The growth is something wonderful, and the foliage immense, without sign of mildew or disease. The fruit is large, thin-skinned, of a beautiful amber-color, and in quality delicious. Yet it refuses to set. Some years there is no fruit at all; others just a few straggling berries. Then the little Centennial is nectar itself; but the berries are so small, and the vine of weak growth. Neither Pocklington nor Niagara is good enough for the fastidious palate, and others of the fancy brand are so very susceptible of disease as to be practically useless. In testing the comparative merits of many varieties I found, last season, the new Francis B. Hayes one of the really fine grapes, but it may not succeed later on. A little unknown variety, under the name of Willis, is very early and good, but it will not pay in a commercial sense. A trial of two years with the Empire State has given good results; it is so far hardy, reliable and of excellent quality. Vergennes continues near the head of the list for good character, but Woodruff Red is too poor to be recommended for this section, where so many better varieties will succeed.

The idea that tart apples are necessary for cooking is widespread and erroneous. No sauce can be more toothsome than that prepared from the good old Sweet Bough. Later in the season Jersey Sweet takes its place, and during winter Talmage Sweet fills the bill. There is more nutrition and fattening properties in a sweet than in a tart apple, as all our stockraisers are well aware, and animals as a rule prefer the former. As regards economy, the points are all in favor of the saccharine fruit. Even the Fall-water is delicious when converted into dumplings. Tastes differ in preference for the dessert, but I share for the mild sugar apples the predilection of my pet Jersey and Chester Whites. In fact I cannot enjoy a tart fruit; the acidity has such an effect upon the enamel of my teeth that I am made to suffer for the indiscretion for hours after eating them. There is an old Pennsylvania apple, ripening in September, which perhaps contains more saccharine juice than any fruit of its season; it is very rich, with a crisp yellowish flesh. I can well remember the admirable qualities of this fine sweet fruit, which was grown under the name of Caleb, and was formerly in every orchard in this section, but with the advent of highly praised novelties it has become like the "Great Aunt" a thing of the past.—*Josiah Hoopes, in N. Y. Tribune.*

Horticulture in Lenawee.

The Lenawee County Horticultural Society elected officers and listened to the reports of the retiring officials at its first meeting in 1888. B. I. Laine was chosen President, Peter Collier, Vice-President, Miss M. C. Allis Secretary and N. C. Bradish, Treasurer. After this business was transacted, the Society took up the question of the best varieties of pears:

Mr. Collier didn't like the Anjou, thought it too slow in coming into bearing. He would rather have the Duchesse, as they come in a little later when the market was not so full.

Mr. Strong said in the east it was said to come into bearing as easy as the Bartlett, but with him it did not begin to bear much before ten years old, and not full crops for several years later.

Mr. Woodward said with him the Anjou came into bearing early enough, but he liked the Duchesse better; had sold his last year's crop for \$2.50 per bushel.

Mr. Bradish thought well of the Keffler, on account of its beauty of tree and foliage, as well as beauty of fruit and good bearing qualities.

D. G. Edmiston said that he had forty Bartlett trees in his orchard, and would give \$40 if half of them were Keffler, not because the fruit was of best quality but because of its rare beauty and good shipping qualities, as well as its favorable season of ripening, and it was really a good pear for canning and pickling purposes.

Mr. Collier said he had to grow pears for something else than to eat, and for canning and pickling the Keffler stood high.

The Society decided that the Bartlett, Anjou and Clapp's Favorite were the best varieties for market purposes.

Ornamental Trees.

Aside from the question of forests and their commercial relation the subject of roadside and ornamental tree planting needs attention. Much advance has already been made in this respect and it only requires the encouragement of good examples for this practice to be developed to a far greater extent. Good opportunity is offered in cemeteries for planting a variety of ornamental trees. Many cemeteries in country towns are particularly repulsive—noting more than grave yards. There is room for much improvement in caring for them and a good field is open for much good work by the village improvement societies. The increase of summer visitors at the shore and country has had a considerable influence on the cultivation of ornamental trees throughout the State, and indeed the value of many estates for these purposes is in a great measure dependent on the condition and position of the trees upon them. This class of residents are doing much for the beauty and health of many towns, and some in the western part of the State are being transformed into charming parks. Trees naturally grow massed together, therefore when one is planted in an isolated position it will be exposed to different conditions. The additional exposure to wind and light encourages a more spreading growth and a decrease in height. Single trees are inclined to fruit more freely, and conifers under some conditions so overbear as to exhaust themselves and shorten their period of growth. Evergreens should if possible be planted in a light soil with a rich upper soil; cold heavy soils may sometimes be helped by underdraining.

While there are many trees suitable for plantations or parks, lawns or rural roadsides, there are comparatively few suitable for

city streets. The rock maple is more frequently used and is well enough when not used to the exclusion of other trees. For a wide street nothing can equal the arching effect of the American elm; but it requires good soil, and it is in great danger of being cast aside through the desire of immediate effect. In more crowded city streets the European elm has proved most satisfactory. Its habit is more dense, and it retains its foliage longer in the autumn. It also endures the poorer air of the city and is free from attacks of the canker worm. The Norway maple is a most desirable tree in the vicinity of the seashore. The white maple is a tree of graceful habit, but best seen in parks and lawns, although suitable for less frequented streets. White ash, basswood, red maple and Dutch elm are of value in proper situations, and the red oak has proved in many places a fine street tree. For many streets in country towns the hickory, oak, birch, chestnut and necklace poplar may be used which would not meet the requirements of the city.—*N. E. Farmer.*

Compacting the Soil.

As illustrating the necessity of firming the soil for a seed bed the following instances are instructive:

A cabbage grower had failed often to get his cabbage seed up. He had an enormous Newfoundland dog, that took a great fancy to lying on a certain spot of this cabbage plot. When the time came for the seed to germinate he noticed that wherever that dog had laid and made the ground hard, the seed came up. That established the theory, that the seed when once in the soil wants to be sown firmly, so that when the germinus pushes up through the earth, the tap root should get a firm hold in the soil. Thus he never failed in germinating good seed even if it was six years old. It will take longer of course than if it was two years old, but it will not lose its germinating power.

Mr. Houghton, of Concord, said: "I raise strawberries. I can plow them without turning the team on them. Last spring I made a new bed, and was obliged to turn my team around on the bed. I put the plants in the ground very compact, and every one that I set out where the ground had been so firmly trodden down lived, and they made more than twice as much as the others."

B. P. Ware related the following: "I have heard my father tell of a man in Worcester County, who used to grow onions known long before his history was written. It says: The prehistoric area of the onion was chiefly in the region lying between Trebizond and Ghilan. The lake dwellers of Lombardy, Savoy and Switzerland make great use of onions. They always cut them lengthways and preserved them dry as a provision for the winter, writes DeCandolle, in his interesting work on "the origin of cultivated plants." Two varieties of onions seem to have been known to the lake dwellers before they possessed metals. Whether they ever solved the problem that hopelessly puzzled George III, and got them into a dumpling, archaeology does not as yet inform us. The abundance of the onion found in prehistoric stores would seem to indicate some kind of cultivation. The onion is of less frequent occurrence, although it is found in the prehistoric dwellings of Switzerland and Italy, unusually in a dried state, and cut lengthways. Then, as now, therefore, the onion was a greater luxury than the apple. The abundance and variety of names testify to the very ancient existence of the onion, from the Caspian sea to the Atlantic. So prehistoric dairymen possessed one of the best of all fruits—the grape. Seeds of the grape have been discovered in the lake dwellings near Parma, dating from the age of bronze; also in the prehistoric settlements of Lake Verse and of Switzerland.

Protecting Fruit Trees.

L. Mohler, in the *Warrensburg (Mo.) Standard*, gives below a method for protecting fruit trees against rabbits. As winter is the time when these pests to the orchardist do their damage, the suggestion is sensible, and, I think, save thousands of trees this winter. This method is endorsed by the State Horticultural Society, it having been given at the 29th annual meeting and at the recent one at Booneville:

Wire cloth around the tree is an effective protection against rabbits, and if inserted an inch or two into the ground, is an equally sure protection against the ground mice which often girdle the trees at and below the surface during the winter. There is especial danger from mice if the ground is covered with grass, weeds or the mulch of the summer, which should be removed for some distance around the tree unless the wire mentioned is used. If wire is used it may be left on as a protection to borers in the summer. Apple, pear, peach, plum, cherry, apricot, quince, all kinds of fruit trees are now nightly exposed to destruction by the rabbits unless protected by some means. The rabbits having not done so before, is no reliable assurance that they will not eat up your orchard this winter. The change in grass and weed plots, corn fields, conditions of hedge rows, etc., also change the haunts of the rabbits and one cannot tell when they will make a raid on the orchard. As a protection sprinkling blood on the trees, rubbing with greasy bacon, or the flesh of the rabbit, as is frequently practiced, may be effective for a time, but these applications are liable to be washed off by heavy rains, leaving the tree exposed before winter is over. A surer method is to wrap the trees with something. Rye straw, slough grass, heavy paper, rags, etc., are used, and one is as good as the other if the body of the gods. Is it any wonder then that this

"Beautiful lily, dwelling by still rivers," should have been designated by a name so closely associated with the superb hues of the bow of promise, on which the winged messenger was supposed to bear away the departing spirits.

In the Iris family botanists include the Crocus and the Gladiolus; and of the Iris proper there are very many distinct species, both wild and cultivated; and by a judicious selection they may be had in bloom during most of the spring and summer months, and one is as good as the other if the body of the gods. Is it any wonder then that this

"Quince, like other fruits, varies more or less when grown from the seed, and as its seeds are very numerous and easy of germination, seedlings are not uncommon. Approved sorts are grown from the original seedlings by means of cutting or layers, thus continuing the identical sort as we preserve and propagate any choice variety of potato. The more fleshy sorts of quince assume a round form, almost like that of an apple, and sorts less developed in this respect, resemble a pear more. Many make but two divisions of the cultivated sorts of quince, namely, into apple and pear quinces. Some sorts ripen rather late for profitable marketing, although keeping well and gradually ripening in the house, serving well for home use. The wood of some sorts resists cold better than that of others, but all are liable to suffer when young, unless cautiously grown. The roots are fibrous and apt to run superficially; and, in the heat and drought of July and August, they suffer, as some sorts of raspberries often do, from being scorched and dried in the overheated soil. A good mulch is the best preventive of this. Even the tops suffer in this way, additionally to the want of sufficient supplies from the roots; and young plants, of which the bark is thin, should have their stems swathed with cloth or paper during the summer. If this is closely put on from below the sur-

face up, it will repel the egg-laying mother of the borer grub, which likes the quince better even than any sort of apple. Quinces are generally scarce in the market and high-priced because few take the care necessary to produce them, or have the good fortune to have their trees accidentally carried safely through the trials of their young existence."

Evaporated Fruit.

The green fruit is apparently being crowded out very fast by the dried or evaporated kind. In a single county in New York, over \$100,000 are said to have been expended in evaporating apples and canning them. And this leading county in the business has a number of followers in the same State. The new industry has its location in western New York, where orchards and nurseries on a large scale abound, and it is developing with astonishing rapidity. It is stated that more than a dozen new and large evaporators have been erected in Niagara County alone, and are running day and night.

The principal market for this kind of prepared fruit is Europe, where dried apples are largely supplanting the fresh and whole fruit. Agents of English firms are now in Niagara County, buying it up in large quantities for export. They gave as a reason for preferring the fruit in this form that the barrelled apples become so badly affected with rot in making the trans-Atlantic trip. For the same reason, it is apprehended that bad luck will come out of the purchases of the commission men, amounting to several hundred thousand barrels, which are stored in the country. A number of European firms have this year sent over their agents to this country to buy from personal inspection rather than trust to the commission firms.—*Massachusetts Ploughman.*

Prehistoric Fruit.

Chambers' Journal calls our attention to the fact that such common fruit as apples, pears and grapes were known long before history was written. It says: The prehistoric area of the apple was chiefly in the region lying between Trebizond and Ghilan. The lake dwellers of Lombardy, Savoy and Switzerland make great use of onions. They always cut them lengthways and preserved them dry as a provision for the winter, writes DeCandolle, in his interesting work on "the origin of cultivated plants."

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Protecting Fruit Trees.

L. Mohler, in the *Warrensburg (Mo.) Standard*, gives below a method for protecting fruit trees against rabbits. As winter is the time when these pests to the orchardist do their damage, the suggestion is sensible, and, I think, save thousands of trees this winter. This method is endorsed by the State Horticultural Society, it having been given at the 29th annual meeting and at the recent one at Booneville:

Wire cloth around the tree is an effective protection against rabbits, and if inserted an inch or two into the ground, is an equally sure protection against the ground mice which often girdle the trees at and below the surface during the winter. There is especial danger from mice if the ground is covered with grass, weeds or the mulch of the summer, which should be removed for some distance around the tree unless the wire mentioned is used. If wire is used it may be left on as a protection to borers in the summer. Apple, pear, peach, plum, cherry, apricot, quince, all kinds of fruit trees are now

nightly exposed to destruction by the rabbits unless protected by some means.

The rabbits having not done so before, is no reliable assurance that they will not eat up your orchard this winter. The change in grass and weed plots, corn fields, conditions of hedge rows, etc., also change the haunts of the rabbits and one cannot tell when they will make a raid on the orchard.

As a protection sprinkling blood on the trees, rubbing with greasy bacon, or the flesh of the rabbit, as is frequently practiced, may be effective for a time, but these applications are liable to be washed off by heavy rains, leaving the tree exposed before winter is over. A surer method is to wrap the trees with something. Rye straw, slough grass, heavy paper, rags, etc., are used, and one is as good as the other if the body of the gods.

Is it any wonder then that this

"Beautiful lily, dwelling by still rivers," should have been designated by a name so closely associated with the superb hues of the bow of promise, on which the winged messenger was supposed to bear away the departing spirits.

In the Iris family botanists include the Crocus and the Gladiolus; and of the Iris proper there are very many distinct species, both wild and cultivated; and by a judicious selection they may be had in bloom during most of the spring and summer months, and one is as good as the other if the body of the gods.

Is it any wonder then that this

"Quince, like other fruits, varies more or less when grown from the seed, and as its seeds are very numerous and easy of germination, seedlings are not uncommon. Approved sorts are grown from the original seedlings by means of cutting or layers, thus continuing the identical sort as we preserve and propagate any choice variety of potato. The more fleshy sorts of quince assume a round form, almost like that of an apple, and sorts less developed in this respect, resemble a pear more. Many make but two divisions of the cultivated sorts of quince, namely, into apple and pear quinces. Some sorts ripen rather late for profitable marketing, although keeping well and gradually ripening in the house, serving well for home use. The wood of some sorts resists cold better than that of others, but all are liable to suffer when young, unless cautiously grown.

The roots are fibrous and apt to run superficially; and, in the heat and drought of July and August, they suffer, as some sorts of raspberries often do, from being scorched and dried in the overheated soil. A good mulch is the best preventive of this.

Even the tops suffer in this way, additionally to the want of sufficient supplies from the roots; and young plants, of which the bark is thin, should have their stems swathed with cloth or paper during the summer. If this is closely put on from below the sur-

face up, it will repel the egg-laying mother of the borer grub, which likes the quince better even than any sort of apple. Quinces are generally scarce in the market and high-priced because few take the care necessary to produce them, or have the good fortune to have their trees accidentally carried safely through the trials of their young existence."

Pruning Pears.

T. H. Burges, of Ulster Co., N. Y., writes the *Country Gentleman*:

We shall be pleased if these lines shall serve to inspire some of our Canadian ladies with a greater appreciation of this beautiful flower, and with somewhat of the spirit of the departed poet who closed his poem with these lines:

"O Fio-er-de-luce, bloom on, and let thy Linger to kiss thy feet!
O flower of song, boun on, and make forever The world more fair and sweet!"

Canadian Horticulturist.

—*Canadian Horticulturist.*

Pruning Pears.

T. H. Burges, of Ulster Co., N. Y., writes the *Country Gentleman*:

While at Providence, R. I., some years ago, I observed at the Dexter farm a new method of pruning pears. Mr. Knowles, the manager, had pruned the tops out of a long row of Bartletts to keep them from shading his hood crops; considering the latter more valuable than the fruit. The result was very gratifying. The trees bore few pears by half, but these were of California size. I have tried this method on most of my trees for two years past, viz., cutting out the central top branches, and, as much as possible, keeping the tops low and small, and while my fruit is not as large as that I saw at Providence, only because under a different management in respect to manuring and tillage, yet I have been pleased with the result. Even Buffum

and Sheldon trees can be trained so as to be reached by a 22-foot ladder. My Bartletts are only about 12 feet. By beginning early, standard pear trees can be kept low, and as dwarfs. He who grows pears must supply plenty of potash or stable manure, and cultivate well in the early part of the season, up to July.

Horticultural Notes.

In Howell County, Mo., there is an orchard of 2,000 acres devoted to fruit-growing, in which are 80,000 peach trees and 20 acres of berries. The trees are said to be remarkably healthy.

There are said to be three grades of Paris green on the market, "strictly pure," "pure," and plain "Paris green." If you have perhaps done a larger business in pure than any other queen raiser in the country, but we prefer to recommend what we think will be found the best in the interests of the bee-keepers who desire to make money out of the business. That splendid result may be obtained from pure colonies and the bees will be certain to prevent the disease.

WHERE rotten grapes are found, we bag a put on the fruit to prevent the disease. It is well to be certain the spores were not present on the grapes before bagging, before we decide the bags are not preventive.

The death of the publisher of the *Gardeners Monthly*, Chas. H. Marsh, occurred December 21, 1887. His death is greatly regretted by his associates and friends, especially those connected with the most excellent publication.

The Horticultural societies of 21 States give the Anjou pear double stars in the fruit lists, and 13 States give single stars. The Anjou is for the autumn what the Bartlett is for the summer market; Marshall Wilder said that for one pear, the Anjou is the best deal to do with it. Our recommendation is based on a general experience taking good seasons with poor ones and vice versa.

AS illustrating the vicissitudes of bee-keeping, Mr. S. Cornell, of Lindsay, Ont., had 213 colonies of bees which he put into winter quarters in the fall of 1886. Unhappily, the bees had stored honey-dew, and all that had laid in winter stores of this, largely succumbed "to the inevitable." In June of the following year, he had but 58 colonies remaining. Mr. Cornell now strongly advises extracting honey-dew, and feeding sugar syrup.

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DETROIT, MONDAY, JANUARY 23, 1888.

This Paper is Entered at the Detroit Post-office as second class matter.

WHEAT.

The receipts of wheat in this market the past week amounted to 38,697 bu., against 51,187 bu. the previous week, and 104,276 bu. for the corresponding week in 1887. Shipments for the week were 4,704 bu. against 3,653 bu. the previous week, and 56,387 bu. the corresponding week in 1887. The stocks of wheat now held in this city amount to 1,240,005 bu., against 1,193,518 bu. last week and 2,584,415 bu. at the corresponding date in 1887. The visible supply of this grain on Jan. 14 was 43,248,132 bu. against 43,857,126 the previous week, and 62,580,806 for the corresponding week in 1887. This shows a decrease from the amount reported the previous week of 605,994 bushels. As compared with a year ago the visible supply shows a decrease of 19,577,674 bu.

The market closed on Saturday about steady, with prices on spot $\frac{1}{2}$ @ 1c lower than the previous week, and futures showing about the same loss. Sales for the week, including both spot and futures, aggregated 1,814,000 bu. against 1,386,000 bu. the previous week, indicating a more active market. Early in the week the market was strong, but I weakened and reached its lowest point on Friday, spot recovering about $\frac{1}{4}$ c on Saturday and closing steady. Chicago and New York were in about the same condition. May wheat showing a loss during the week of 1c in Chicago, and $\frac{1}{4}$ c in New York.

The following table exhibits the daily closing prices of spot wheat in this market from Jan. 31 to Jan. 21, 1888:

No. 1	No. 2	No. 3	White.	Red.	Red.
Jan. 3	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88
4	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88
5	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88
6	86 $\frac{3}{4}$	86 $\frac{3}{4}$	87 $\frac{1}{4}$	87 $\frac{1}{4}$	87 $\frac{1}{4}$
7	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88
8	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88
9	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88
10	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88
11	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88
12	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88
13	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88
14	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88
15	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88
16	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88
17	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88
18	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88
19	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88
20	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88
21	87 $\frac{1}{4}$	87 $\frac{1}{4}$	88	88	88

For No. 2 red the closing prices on the various deals each day of the past week were as follows:

Jan.	Feb.	Mar.	May.
Monday.....	87 $\frac{1}{4}$	88	91 $\frac{1}{4}$
Tuesday.....	87 $\frac{1}{4}$	87 $\frac{1}{4}$	90 $\frac{1}{4}$
Wednesday.....	86 $\frac{3}{4}$	87 $\frac{1}{4}$	90 $\frac{1}{4}$
Thursday.....	86 $\frac{3}{4}$	87 $\frac{1}{4}$	90 $\frac{1}{4}$
Friday.....	86 $\frac{3}{4}$	87 $\frac{1}{4}$	90 $\frac{1}{4}$
Saturday.....	87 $\frac{1}{4}$	87 $\frac{1}{4}$	90 $\frac{1}{4}$

Shipments of wheat from India for the week ending Jan. 14, 1888, as per special cable to the New York Produce Exchange, aggregated 300,000 bu., of which 80,000 bu. were for the United Kingdom and 120,000 to the Continent. The shipments for the previous week, as cabled, amounted to 80,000 bushels, of which 40,000 went to the United Kingdom and 40,000 to the Continent. The total shipments from April 1, 1887, which was the beginning of the crop year, to January 14, have been 24,100,000, including 12,440,000 bushels to the United Kingdom, 11,720,000 to the Continent. The wheat on passage from India Jan. 4 was estimated at 944,000 bu. One year ago the quantity was 3,936,000 bu.

The following table shows the quantity of wheat "in sight" at the dates named, in the United States, Canada, and on passage to Great Britain and the Continent of Europe:

Visible supply	Jan. 4, 1887	Jan. 14, 1888
On passage for United Kingdom	11,720,000	944,000
On passage for Continent of Europe	2,128,000	3,936,000
Total bushels	15,848,192	5,080,000

It is expected the next report of the visible supply will show a further decline, as receipts have been light at all the principal receiving points.

The exports of wheat and flour the past week, are reported as equal to 2,000,000 bu. of wheat. The demand for flour has been unusually active, and the *Mark Lane Express*, in its issue of last week, says that the importations of flour now exceed those of wheat, which, if continued, means a speedy destruction of the English milling industry. Private cables have also reported an absence of demand, but the movement still keeps up, whether on orders or on consignment is not known.

The *Northeastern Miller*, in its last issue, says that the output of the Minneapolis mills last week was 99,300 barrels, against 108,400 barrels the previous week, and 111,200 barrels the corresponding week in 1887. Floating ice has been a source of much trouble for several days, causing several of the mills to drop out at times, and the water has averaged much better for the rest. Twelve mills are running, six driven by steam. The snow blocking, and the past week has made it difficult

for the mills to get wheat enough to grind, there being times when some of them had used almost their last bushel. As a result, supplies have been largely drawn from local elevators.

While cable reports are not favorable for sellers, the trade generally regard the position of wheat as a strong one, with the future promising well for holders. No matter how dull the trade is it seems impossible to force down prices for more than a day or two. The *Chicago Tribune* remarks: The receipts of grain in this city are now very small, as was to be expected, but they have been light hitherto, and soon will come the time when blizzards will give place to thaws. The prospect for filling up our elevators with grain this winter is a slender one and is becoming thinner every day.

Dornbusch calls attention to the fact that the stocks of wheat and flour in the United Kingdom and abroad thereafter at the beginning of the year were about 400,000 quarters, or 10 per cent less than twelve months previously, and that if the quantities afford to the Continent be taken into account \$50,000 quarters less were in front of the European markets last New Year's day than a year previously.

The estimated receipts of foreign and home-grown wheat in the English markets during the week ending January 14 were 198,400 bu. less than the estimated consumption; and for the eight weeks ending Dec. 31 the receipts are estimated to have been 2,199,544 bu. more than the consumption.

The market continues to present a quiet appearance. Fancy creamery shows a slight gain from the condition reported for the past three weeks. The woolen trade is not doing so well as expected, and this exercises a depressing influence upon the market for wools. It is probable that heavy weight wools will not sell so high as a year ago, and this keeps manufacturers out of the market just as long as possible, as they do not know what to expect.

At Boston the record of sales for the week has been quite large, comprising 2,331,300 lbs of domestic fleece, and pulled, and 117,000 lbs of foreign, making the week's transactions foot up 3,498,300 lbs against 2,451,900 lbs for the previous week and 10,180,300 lbs for the corresponding week last year. That wool market shows no special signs of activity, but the volume of sales foots up larger. Of the business doing very little has been done in foreign wool, the business in domestic wool absorbing about all the attention of the trade. As to prices, No. 1 combing has sold at 37c@38c, while Ohio fleece sold at 30c@31c, which is the generally accepted price for this wool, although some lots are held above these figures. For XX fleece there is little demand. Michigan X continues to sell fairly, but it is difficult to get over 28c for this wool, and most sales are at that figure. Dehaven receives little more attention, and are quoted steadily in working off except at concessions, so the tone continues weak, with 34c for Eigin and 33c@33c for Pennsylvania full high to quote, though small lots of exceptional quality work out to a regular trade a fraction higher. Fancy Western, other than Eigin, continues scarce and held firmly at 32c. Next grades under in ample supply and selling slowly at 28c@30c, while lower grades are very dull and irregular. Full-made State creamery continues to sell fairly, though steady. Fancy creamery, State dairy is only moderately active, but fancy grades in light supply and fairly held, while under grades are held about steady. Fine imitation creamery in light supply and firm, but most lots show frosty flavor and ruling slow. Western dairy quiet and unchanged. High and low grades fresh factory in good demand and firm, but medium grades slow and irregular. Rolls very dull, with little saleable above 18c.

Quotations in that market on Saturday were as follows:

DAIRY PRODUCTS.

BUTTER.

The market as a whole may be quoted dull, but the scarcity of really fine stock prevents any decline in prices for that grade, and holders are firm in demanding outside figures. But medium and low grade stock is weaker and values are somewhat lower. Creamery holds very steady, and shows no change in prices. Quotations range as follows: Fine packed dairy, 30c@31c; choice dairy rolls, 18c@19c; medium to good dairy packed, 16c@18c; medium to good dairy rolls, 15c@17c; creamery, 26c@28c, the latter for choice. The Chicago market on Saturday was quiet but unchanged. Freshly made creamery holds of good flavor was for that grade, as the trade generally regard the position of wheat as a strong one, with the future promising well for holders. No matter how dull the trade is it seems impossible to force down prices for more than a day or two. The *Chicago Tribune* remarks: The receipts of grain in this city are now very small, as was to be expected, but they have been light hitherto, and soon will come the time when blizzards will give place to thaws. The prospect for filling up our elevators with grain this winter is a slender one and is becoming thinner every day.

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Poetry.

ENTRE ACTES REVERIES.

Between the acts while the orchestra played
That sweet old waltz with the lilting measure,
I drifted away to a dear dead day
When the dance for me was the sum of all
pleasure;

When my veins were rife with the fever of life,
When hope ran high as an inswept ocean,
And my heart's great gladness was almost mad
ness

As I floated off to the music's motion.

How little I cared for the world outside,
How little I cared for the dull day after.

The thought of trouble went up like a bubble
And burst in a sparkle of mirthful laughter.

O! and the beat of it, oh! and the sweet of it,

Melody, motion, and young blood melted;

The dancers swaying, the players playing,

The air song-dangled and music-pealed.

I knew no weariness, no, not I!

My step was as light as the waving grasses

That flutter with ease on the strong armed
breeze.

As it wafted over the wild morasses.

Life was all sound and swing, youth was a per-
fect thing.

Night was the Goddess of satisfaction.

Oh, how I tripped away, right to the edge of day,

Joy lay in motion, and rest lay in action.

I dance no more on the music's wave;

I yield no more to its wildering power.

That time has flown like a rose that is blown,

Yet life is a garden forever in flower.

Though storms of tears have watered the years

Between to-day and that day departed,

The trials have met me, and grief's waves yet
me.

And I have been tired and trouble-hearted.

Thou'nd under the sod of a ween green grave

A g'at sweet hope in darkness perished,

Yet life is a step toward God—

Lifting the soul from the common sod

To a purer air and a grander viewer.

We build the ladder.

Ella Wheeler Wilcox.

Heaven is not reached at a single bound;
But we build the ladder by which we rise
From the lowly earth to the vaulted skies,
And we count to the summit round by round.

I count this thing to be grandly true:

That a noble deed is a step toward God—

Lifting the soul from the common sod

To a purer air and a grander viewer.

We rise by things that are under feet;

By what we have mastered of good and gain;

By the pride deposit, and the passion slain;

And the vanquished it is that hourly meet.

We hope, we aspire, we resolve, we trust,

When the morning calls us to life and light;

But our hearts grow weary, and ere the night

Our lives are trailing the sordid dust.

Only in dreams is a ladder thrown

From the weary earth to the sapphire walls;

But the dreams depart, and the vision falls,

And the sleeper wakes on his pillar of stone.

Heaven is not reached at a single bound;

But we build the ladder by which we rise

From the lowly earth to the vaulted skies,

Add we mount to the summit round by round.

—Dr. J. G. Hollind.

Miscellaneous.

TWO TO ONE.

"Ha, Miss Floyd, nothing wrong with you, eh? You really set a magnificent example to your sex—no, I won't sit down; must have my constitutional, you know. I hope your mother is not ill?"

"Oh, I guess she's feeling rather bad. She's been down stairs quite a long time; but she's got a dozen lemons, anyhow, so she'll do," was Mamie G. Floyd's most unusual reply.

Old Dr. Stuart toddled away, and Mamie G. Floyd nestled back more comfortably on her deck chair, perched her pretty little head cozily on the pink-hued cushion, without which she never traveled, and then gave herself up to an interesting story which possessed the distinct delight of making her "creep little maid." She was almost alone in her glory, for the Griselda had only steamed out of New York bay the evening before, and such ladies as were on board were too nervous or too ill to face a decidedly rough morning on deck. Miss Mamie had come to the end of her book, and when at last she closed the volume, and had recovered from the last sleep, she found herself the sole occupant of the leeside, with a heavy rain soaking the awning, and the long row of empty deck chairs for her only companions.

"Well, this is lively, anyhow," she mused drowsily; "how do I suppose I am going to pass the next six days. Even ma is better off than I am; she has the lemons and the uncertainty, while I—"

Mamie strangled a yawn, and then all of a sudden she was very wide awake. Away at the end of the deck she des cribed two figures, one slender and graceful, despite the hideous mackintosh that covered it, the other a very tall, broad-shouldered man, who was distinctly familiar to Miss Mamie, and at sight of whom she pursed her pretty lips and emitted a soft whistle.

"Jack Dudley, by all that's queer!" she remarked to herself. "I guess ma will have a fit when she finds this out. Up to his old games, I suppose. Looks like it."

But at that moment the female figure vanished, and Mr. Dudley came striding along the wet deck, his collar well turned up, and his hands deep in his pockets.

"Miss Floyd! you here? I—what a surprise!"

"Quite a long time since we met, isn't it, Mr. Dudley? No, don't take off your cap, you'll get your head wet, and that will serve no purpose, anyhow."

Jack Dudley laughed, and shook himself like a big Newfoundland dog.

"One wet inch more or less, what does it matter?" he said, as he sat down on the empty chair near her, and looked at her with much admiration expressed in his dark blue eyes; "but it's a very different thing for you. Are you wise to stay out here, Miss Floyd? Your rug is soaked through."

"I like it," was the reply; and in the face of this there was nothing more to be said, Jack Dudley having learned by ex-

perience that whatever Miss Mamie G. Floyd desired to do, that she did.

There was considerable silence after this, broken at last by her.

"Well," she observed, sharply, "have you nothing to say, Ja—Mr. Dudley?"

"Nothing at all, Ma—Miss Floyd."

Miss Mamie prodded viciously at the chair with her dainty little feet.

"Who are you fooling round with now?" was her next question.

"Am I to understand by that that you allude to our former engagement as 'fool ing round?'" was the reply, given very mournfully. "If so, you very—"

Miss Mamie laughed. "What an actor you are, Jack, off the stage!"

"How did you know I had ever been or one?" he asked eagerly.

"I saw you in Chicago a while back, and I just enjoyed myself, I can tell you! That was the first and last time I have seen or heard of you since—" and Miss Mamie finished abruptly.

In five minutes the two women were friends, and Miss Mamie decided that Dr. Stuart had not been wrong when he had said that Miss Elliot was very desolate, very sad and very poor. She did not even possess a rug, and was covered with thin flimsy shawl, until Mamie sent the deck steward for some of her manifold wraps, and despite Miss Elliot's protestations, had swathed in them until she resembled nothing so much as a mummy.

It was with some difficulty Miss Mamie induced Gladys Elliot to accept the loan of so large a sum, but by dint of coaxing and common sense argument she succeeded at last, and the envelope inclosing the bank notes was slipped into the other's hand.

As soon as she was alone, Miss Mamie unfolded Jack's check. "For five-and-twenty pounds," she read, and somehow the writing became blurred all at once. "And that's the man Uncle Hiram kicked out and called a thief! I guess he made a mistake and so did I. I'll go and speak to Jack this very minute. Suppose I am going to marry Mr. Biddulph, there's no harm in saying I'm sorry for an old love."

But fate, in the form of her mother, appeared at this juncture and prevented her. There must be a letter written at once to go off by the tender and catch the next steamer outward bound. Mamie must write it without delay. Despite her daughter's protests that it was too late, Miss Mamie had to obey, and then rushed on deck in time to see the tender half way to land, and to learn by the motion of the Griselda that her engines were hard at work again.

"Never mind, now I can find Jack," she determined; and away she marched on her voyage of discovery. But though she looked till she was tired no sign of Mr. Dudley was visible. Gladys Elliot, too, had disappeared, but that was nothing strange.

It was not until she was seated at dinner that Miss Mamie heard the startling intelligence that Mr. Dudley and that poor, pretty Miss Elliot were among the few passengers who had embarked at Queenstown; and while the truth that she had been shamefully "done" was slowly but surely creeping into her mind, Miss Mamie made another discovery, one even more unpleasant to realize than the first. As she was seated in her cabin, trying to puzzle out the mystery, she was suddenly confronted with the sight of her travelling-bag wide open, staring at her defiantly from the berth. In an instant she knew the worst. Every single jewel was gone, and in their place was a little note, which, when she read it, left her utterly speechless and pale to the lips:

"I guess I won't spring Jack on her just yet; she feels badly enough as it is; and, after all, I am quite able to take care of myself, and I know how much that young man is worth. If I don't, I ought to; I had experience enough for any girl."

Miss Mamie removed her wet garments, took a farewell glance at her chestnut bang and marched away to luncheon with an appetite that provoked a wonder in her mother's breast, a wonder accompanied with a shudder.

She cast her sharp eyes round the saloon for that female figure who had shown herself for a moment on the deck with Mr. Dudley, but, though there were one or two of her own sex possessed of sufficient temerity to brave the luncheon table, Miss Mamie soon decided she was not there.

"It will be kind of quaint watching Jack flirt with some other girl and fool her as he did with me," she thought, as she discussed the good things. "My! what an idiot I made of myself. I guess he'll have to be very sharp to get the best of me again in a hurry. How well he wears! I wonder what he uses for his moustache? It is simply heavenly, that color."

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"Are you going to venture on deck again this afternoon, Miss Floyd? If so, will you let me make you comfortable? I have found the snuggest corner in the world, where neither wind nor rain nor spray can reach," said Mr. Dudley, when lunch was over.

"I guess you're wrong there; you've got me," she replied.

Miss Elliot turned impulsively. "Ah! how good you are! How good you have been! You are an angel!"

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miserly she had been and still was enduring, and when Dr. Stuart in a few confidential words informed her that he had discovered the young lady to be quite alone and evidently in great trouble, Mamie's warm heart went out to her sister traveler in the impetuous way her mother and brother so frequently deplored.

Miss Mamie held out her hand. "Give me the check," she said, quietly; "I will cash it and put your loan with mine; for it's funny, isn't it, but I was just

THE AMBITIOUS MAIDEN.

"The man I marry," said the maid. "Must be a man of men austere, To whom respect is always paid, And who is also held in fear; A man who wields authority—A woman even children hold in dread, And men salute as they pass by—And now no other man I'll wed."

Perhaps it was a duke or lord. To whom she must be given her hand. Or warrior bold, with flashing sword, With arms under his command.

With no name came to woo, Or warrior bold his soft to press But to her vow the mold was true,

And lived in single blessedness.

The years went by and she began To think she could not married be For she would wed no common man As we have remained previously;

But all things come to those who wait."

"This maxim is as true as trite;"

At last the maiden found her fate

To one who met her notion quite.

A man of countenance severe, By nature fitted to command Whom everybody holds in fear—To him the maiden gave her hand.

The weak, the strong, he lords it o'er;

The children tremble at his frown—

She's married to the janitor

Of an apartment house up town.

The First Railroad.

Perhaps there is nothing in the line of discovery and improvement that has shown more marked progress in the last century than the railway and its auxiliaries.

I remember that much less than a century ago the first patent for a locomotive to move upon a track was issued,

where now we have everything that heart can wish, and in fact, live better on the road than we do at home, with 36 hours between New York and Minneapolis, and a

gorgeous parlor, bed-room and dining-room

between Maine and Oregon, with nothing missing that may go to make life a rich blessing, we are compelled to express our brotherhood and admiration.

To Peter Cooper is largely due the boom given to railway business, he having constructed the first locomotive ever made in this country, and put it on the Baltimore & Ohio railroad.

The first train ever operated must have been a grand sight. First came the locomotive, a large Babcock fire-extinguisher on trucks, with a smokestack like a full-blown speaking tube with a flail around the top; the engineer at his post in a plug hat, with an umbrella over his head and his hand on the throttle, borrowing a chew of tobacco now and then of the farmers who passed him on their way to town. Near him stood the fireman, now and then bringing an armful of wood from the fields through which they passed, and turning the engine, if it would draw. Now and then he stopped to go forward and put a punk rind on a stopped hot box or pound on the cylinder-head to stopper.

Warren's saw people off the track.

Next comes the tender loaded with nice, now Warren's birch-wood, an economical style of fuel, because the bark may be easily burned in any locality while the wood itself will remain unburned a specimen. Besides the wood we find on the use. The tender a barrel of rain water and a tall, entrance to the blonde jar with wicker-work around it, a sprig of tansy immersed in four gallons of New England water. This the engineer has brought with the New York for use in case of accident. It is now engaged in preparing for the accident in case it would occur.

Next comes the front brakeman in a plug about two sizes too large for him. He also wears a long-waisted frock-coat with a bustle to it and a tall shirt-collar with a sailor-style spread, the ends of which flutter in the wind in the morning breeze. As the train passes at the first station he takes a hamper out of the tool-box and nails on the times, and the of the fore-wheel of his coach. The engineers get down with a long oil-can and a little soap and a little sewing-machine oil on the platters. Then he wipes it off with his sleeve.

It is now discovered that the rear coach, containing a number of directors and the division superintendent, is missing. The engineers and conductor goes to the rear of the last couch to the present finds that the string by which the directors' car was attached is broken, and the bullion is at the grade being pretty steep the direction back and bars. Directors and one brakeman have no doubt gone back to the starting place.

But the conductor is cool. He removes his bell-crowned plug hat, and taking out his orders and time-card he finds that the first train is clear, and looking at a large, valuable Waterbury watch, presented to him by a widow whose husband was run over and killed by the train, he sees that he can still make the station in time for dinner. He hires a livery team to go back after the directors' coach, and calling "all aboard" he swings lightly upon the moving train.

It is now ten o'clock, and nineteen weary miles stretch out between him and the destination. To add to the horrors of the situation, the front brakeman discovers that every thirsty boy in the emigrant car has been drinking from the water-supply tank on the tender, and there is not enough left to carry the train through. Much time is consumed in filling the barrel again at a spring near the track, but the conductor manages to "spotter" on the train and gets him to do it. He also induces him to some more wood and clean out the ashes.

The engineer then pulls out a drawhead and begins to make up time. In twenty minutes he has made up an hour's time, though two miles of hoop-iron are torn from the track behind him. He sprints into the station on time, and, while the rear mechanic takes several of the coaches over to the machine shop to soak, he has a hurried lunch.

The brakeman here gets his tin lanterns ready for the night, runs and fills to the water-supply tank on the eccentric, stuffs some more cotton batting around the axles, puts a new wash-pen in the hind wheels, sweeps the sole-peelings out of the smoking-car, and is ready.

Then comes the conductor with his plug full of excursion tickets, orders, passes and time checks; he looks at his Waterbury watch, waves his hand and calls "All aboard" again. It is upgrade, however, and for two miles the "spotter" has to push him with all his might before the conductor will allow him to get on and ride.

This began the history of a gigantic enterprise which has grown till it is a comfort,

a convenience, a luxury, and yet a necessity. It has built up and beautified the desert. It has crept beneath the broad river, sealed the snowy mountain, and hung by iron arms from canyon and precipice, carrying the young to new lands and reuniting those long separated. It has taken the hopeless to lands of new hope. It has invaded the solitude of the wilderness, spiked down valuable land-grants, killed cheap cattle and then paid a high price for them, whooped through valleys, snorted over lofty peaks, crept through long, dark tunnels, turning the bright glare of day suddenly upon those who thought the tunnel was two miles long, roared through the night and glittered through the day, bringing alike the groom to his beautiful bride and the weeping prodigal to the moss-grown grave of his mother.

Oriental Juggling.

"Most of the wonderful feats attributed to the jugglers of India and Japan exist only in the imagination of the fellows who told about them," said the magician Keller. "I have seen everything of note in the juggling business that India, China and Japan can produce, and I have never seen the juggler yet who could throw a ball of twine in the air to form a sort of Jack-and-the-bean-stalk ladder, and then climb out of sight and pull the string up after him, and stay up out of sight until a companion fired a pistol and brought him down to earth in shattered fragments, which presently came together and formed a living, uninjured man again—I tell you, honestly, I never saw that trick."

"That's curious, too."

"Yes; for everybody has read it. Certainly, between you and me, I do not believe it can be done. But I'll tell you a clever trick I saw a juggler in India do: he called the basket trick. The juggler explained to the spectators that he was going to kill his little boy, and asked them to choose a spot on the turf in the open air where he might perform the trick. He stationed himself at the chosen spot, his apparatus being a basket with a hinged lid, a little boy, and a sharp sword. He was nothing but a bachelorette. The spectators closed around in a circle so that no one could get in or out without detection. The juggler put the child in the basket, closed the lid, and muttered an incantation. Then he seized a large white cloth he had in readiness, threw one end over the basket and fastened the other end to his waist by twisting it down under the bachelorette, leaving a portion hanging down below his knees. Then he drew the sword and plunged it through the basket. As the child's agonizing screams broke forth the man drew out the sword all dripping with blood. Again and again he plunged the sword through the basket, the child's screams growing fainter and fainter until they ceased altogether. The juggler asked that the basket be examined. It was opened and found empty. A gleeful shout was heard, and the company, looking in the direction whence it came, saw the juggler's child perched on the limb of an adjacent tree."

"That trick puzzled me," continued Mr. Keller, "but I determined to fathom it. At last I espied in the distance Marshall MacMahon riding at the head of his troops. His horse was blindfolded with a cloth and a tall shirt-collar with a sailor-style spread, the ends of which fluttered in the wind in the morning breeze. As the train passes at the first station he takes a hamper out of the tool-box and nails on the times, and the of the fore-wheel of his coach. The engineers get down with a long oil-can and a little soap and a little sewing-machine oil on the platters. Then he wipes it off with his sleeve.

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"Well, I didn't say much in response, but I decided in my mind that a man who would bet \$2,000 on a hand in a friendly game of poker when he didn't even have one pair to back him would be a bad man to meet on a field of battle when he was backed by several thousand able-bodied Confederate soldiers, and the sequel proved that McKay was not wrong in his estimate.

"It was then about dark. I got my men together and told them I expected we would have to fight to-morrow. I threw my line across the creek and commenced that night to build fortifications, and the next morning our forces were all across the creek, and we had plenty of earthworks for an emergency. I ordered dinner to be served to the men by 11 o'clock. About that time Gen. Thomas came along, saluted me, and asked, 'What's the matter?' saying at the same time 'We must be ready to move forward as soon as Hooker's men have had their dinner,' and expressing the opinion that we would now march into Atlanta without opposition.

"I said, 'General, I think you are mistaken; I think we are going to have a fight.' I had scarcely ceased speaking when we heard a terrible firing to our left. I immediately dispatched a messenger in that direction, who soon returned with the information that Hood had made a terrible charge on our left, and had already broken through two lines of Davis' division and was now charging in our direction, and, sure enough, he was soon down upon us. But with my preparations already described, we were ready to meet him, and you bet we gave him a warm reception, and we defeated him after hard fighting, and soon thereafter marched victorious into Atlanta. Had it not been for McKay's story of the \$2,000 bet he would have made it very uncomfortable for us. As it was, we were ready for him."—Gen. John M. Palmer in *Springfield Register*.

I alarmed myself and asked McKay what he knew about Hood's fighting qualities:

"McKay said: 'Well, sir general, I was in San Antonio, Tex., once, before the war, and I saw that man Hood bet \$2,000 on a hand in a game of poker, and he didn't have even a pair of jacks.'

"Well, I didn't say much in response, but I decided in my mind that a man who would bet \$2,000 on a hand in a friendly game of poker when he didn't even have one pair to back him would be a bad man to meet on a field of battle when he was backed by several thousand able-bodied Confederate soldiers, and the sequel proved that McKay was not wrong in his estimate.

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Continued from First Page)

what he can't defects in the pedigree of Shorthorns in America? Echo answers, who I have not time to write a review of his two volumes, but I have done them justice, continuing at some length to the uncertainty connected with Shorthorn breeding on account of the fear of being out of fashion.

What families are the leaders? I would answer, first, the American stampians and as a matter of traffic, that or those families which are in the most demand from varieties of fashion. But from the standpoint of an honorable breeder, one who breeds only the financial value, but absent here, but the greatest individual excellence also, I would say the cattle regardless of families, which were known to be carefully and purely bred, and which reproduce themselves with the most certainty. No matter what they are Young, Mat, Ross, Shorthorn, or any other, all good families provided they combine high excellence with good reliable pedigrees. All the good is not confined to any family. It is to be found in many, regardless to the pedigree. The best breeders, I will say, among them, that voluminous writer, Wm. Warfield. And while all will not agree with him in many of his ideas, still he writes a vast amount of good practical common sense, and he also practices what he preaches. Speaking of the policy of Shorthorn breeders he says, "Our policy, too, must not be simply for our own locality and the present year, but be equally wide. And all this on not more speculative grounds than the solid common ground that the cattle is always the cheapest." Who builds for prosperity, generally builds best for himself. My idea of what Shorthorn policy ought to be in the present crisis is the same as I have believed it ought to be ever since the day when I first became in the darkest time of situation, and that is a democratic policy. That is, there should be no lines of any sort, no paper and penitent distinctions, only a catholic use of all the breeds of cattle. As a matter of fact, I take it there is room in the Shorthorn ranks for all. If Mr. So and So has confidence in one line of descent and Mr. Blank has equal confidence in quite another, there is room for each to follow his own bent, without fear of being called a heretic. Mr. So to choose the best to pick from both and intermingle the two strains to his heart's content; and not only so, there is room for the common of all breeds. And the rest of us, and of Canada?

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Probably Indigestion.

ALBION, Jan. 2d, 1888.

Veterinary Editor of the Michigan Farmer.

I have a four-year-old mare that is not in the best of condition. She is commencing feeding dry feed; has it about enough, before having it she will not drink any water, but throws up her head, and lies down; does not seem to be in much pain; will get up and eat a little, then lie down. I hope this will aid you fully to describe what treatment to give.

A SUBSCRIBER.

Answer.—From your description of the symptoms in your mare, which are not peculiar to any one class of diseases, we can not satisfactorily diagnose the trouble. It is probably indigestion, or it may be accounted for in dentition, a condition often overlooked, and will require the personal examination of an experienced veterinary surgeon to determine. The following procedure will do no harm. The chances are in either case the animal will be benefited by it. Treatment: Barbadoes aloes pulp, two ounces; chlorate potasse, one ounce; Jamaica ginger root, pulp, one ounce. Mix all together and divide into eight powders. In feeding dampen the hay, which should be clean and sweet; oats also first-class. Give salt freely, that is, place it where the animal can get it whenever it desires. Give one of the powders in the feed at night, or mix with water to a paste and smear on the tongue.

Unthrashed Rye for Feeding Impregnated Animals.

THORNTON, Jan. 6, 1888.

Veterinary Editor of the Michigan Farmer.

Will it injure a mare in foal, or a cow in calf, to feed equal parts of hay and unthrashed rye?

A. L. PECK.

Answer.—Good clean hay in moderate quantity is not particularly objectionable.

Unthrashed rye is not proper food for impregnated animals of any species, from its tendency to contain more or less ergot, a fungus growth in the heads or ears of the plant, which having a specific action upon the uterus or womb of the impregnated animal, causing its contraction, is followed by abortion. "Ergot" rye is poisonous both to man and other animals. When, in bad seasons, it has prevailed, and has been ground into flour with the rye and baked in bread, it has caused many fatal depopulating epidemics in the north of Europe. On quadrupeds its use is followed by emaciation, palsies of the hind legs, and extreme debility. Mules in South America lose their hoofs and hair when fed on ergotized rye, and hens that have ergotized rye mixed with their food, lay eggs without shells, owing to the excitement of the ovule.

—Emerson.

Probably Thickening Integument of the Pastern.

VETERINARY EDITOR OF THE MICHIGAN FARMER.

I have a four year old half-blood Percheron horse that has got a bunch on the front part of the large pastern joint. It commenced to come about two weeks ago; it is as large as a walnut and it is growing. He is lame from it, and it is getting worse every day, and is not being worked very much this winter, only driven enough for exercise. Now if you can tell the cause of it and what will remove it, you will confer a favor on an

OLD SUBSCRIBER.

Answer.—Apply strong tincture of iodine once a day until the skin is well irritated, then discontinue its application, and rub a little vaseline or lard over the enlargement. If not reduced in two weeks, please write us more in detail, stating its character, whether soft, hard, movable, &c., with any other information that will tend to assist us in making a correct diagnosis of its true character. Our subscribers would consult their own interest by careful observation of any symptom connected with sickness, injury from any cause, lameness, &c., before writing us for advice, recollecting that upon the correctness of your description of the symptoms depends the correctness of our diagnosis and treatment.

Diarrhea in Sheep.

WEST HAVEN, Jan. 9, 1888.

Veterinary Editor of the Michigan Farmer.

DEAR SIR:—I have a few sheep in my flock that have got the diarrhea quite bad. They are getting quite thin in flesh. Their feed has been cornstarch and oats, and they have access to an oat strawstack. If you can give me any information, what I should do would greatly oblige.

A SUBSCRIBER.

Answer.—Without a possible clew to the cause or causes of the diarrhea in your sheep, we can only prescribe for them upon general principles. Neglect in salting is productive of morbid condition of the digestive organs, not unfrequently terminating in diarrhea. Give the following: Prepare chalk, two drachms, in half a pint of warm milk once a day for two or three days. This remedy not infrequently has the desired effect. Or give the sheep's cordial if the cases are severe. Take prepared chalk, one ounce; cetechu, half an ounce; Jamaica ginger root, two drachms; opium, half a drachm; reduce all to a powder and mix with half a pint of peppermint water. Give to a grown sheep two or three tablespoonsfuls, night and morning. To lambs one-half the quantity.

Cribbing, Spavined and Ringboned Horses.

LAPFER, Jan. 10, 1888.

Veterinary Editor of the Michigan Farmer.

What is the cause of the habit of cribbing in a horse? Will a horse or mackerel be good to him? Will the habit be cured if brought on by some accident? Is there any remedy or cure for the habit of cribbing? Can a ringbone or spavin be cured if of long standing?

A SUBSCRIBER.

Answer.—To your first question, "What is the cause of the habit of cribbing in a horse?" Will a horse or mackerel be good to him? Will the habit be cured if brought on by some accident? Is there any remedy or cure for the habit of cribbing? Can a ringbone or spavin be cured if of long standing?

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